

## **REQUEST FOR LETTERS OF INTEREST AND STATEMENTS OF QUALIFICATIONS**

Submittals due by 4:00 pm  
**Friday, June 25, 2004**

The City of Seattle Capital Programs Division, Fleets and Facilities Department (FFD), requires the services of a consultant for the following project:

### **GEOTECHNICAL ENGINEERING SERVICES** **For FIRE STATION 10 REPLACEMENT**

#### **Background:**

As part of the nine-year Fire Facilities and Emergency Response Levy (hereafter, FFL) approved by Seattle voters on November 4, 2003, replacement of one of the neighborhood fire stations (Fire Station 10), the Fire Alarm Center and Seattle Police Department Emergency Operations Center will be developed as a single project collectively called the **Fire Station 10 Replacement Project**, on a new site in South Downtown Seattle. The City proposes to procure geotechnical engineering services to assist in this project.

#### **Geotechnical Services Scope of Work:**

1. Explore subsurface conditions by means of up to twelve (12) soil-borings at strategic locations across the site. Specifically, advance nine borings to a depth of 55 feet across the site and three borings to a depth of 25 feet along the Yesler retaining wall toe. If greater depths are necessary due to unfavorable soil conditions, notify the Owner prior to proceeding with the exploration.
2. Before drilling, arrange for Utility Locating Service to identify and mark on-site underground utilities. After drilling, each borehole shall be backfilled with a mixture of soil cuttings and bentonite.
3. Throughout the drilling operation, soil samples will be obtained at 2.5 or 5-foot depth intervals by means of the Standard Penetration Test method (ASTM:D-1586). Provide an experienced geologist or geotechnical engineer to continuously observe all borings, log the subsurface conditions, collect representative samples, and transport the samples to the laboratory for further visual classification and engineering analysis.
4. Excavate one test pit to a depth of 6 feet to field screen the degree of contamination of soils with petroleum hydrocarbon odors, identified in previous soils investigation.
5. After completing field exploration program, analyze the geotechnical site conditions and subsequently submit 6 copies of Geotechnical Engineering Report for the project. Specific items to be addressed in the report will include the following:

#### **GENERAL SITE CONDITIONS**

- Project location.
- Geological description of site.
- Site plan showing approximate exploration location on a base map
- Measured or estimated groundwater elevation, including dates of measurement and anticipated seasonal fluctuations.

- Recommendations for permanent or temporary dewatering, if necessary.
- Identification of any hazardous waste materials on the site.
- General soil conditions, such as logs indicating pertinent variations and geological conditions.
- Results of all laboratory investigations and tests.
- Determination of the existence of loosely consolidated or expansive materials subject to excessive settlement or expansion. If present, list any remedial measures advised by the geotechnical engineer.
- Maximum frost depth, if any.
- Determination of footing elevations for the Yesler embankment.

## **CONSTRUCTION PROCEDURES**

- Maximum slope of embankments during construction.
- Any observable information pertinent to construction procedures or problems that should be evaluated in the design phase and passed on to the contractor through the construction documents.
- Review all earthwork, foundation, or shoring-related specifications prior to bids.

## **FOUNDATION RECOMMENDATIONS**

### **General:**

- Recommended type(s) of foundation system(s) (i.e., spread footings, piles, mats, etc.).
- Anticipated differential and total foundation settlements.
- Subsurface drainage system to be used for under slabs on grade, footings, and basement and cantilever walls.
- Suitability of the on-site materials or requirement for off-site materials for compacted fills under building slabs, along with a recommended specification for compacted fill material.
- Compaction criteria.
- Subgrade preparation and modulus of subgrade reaction to be used for slabs on grade.
- Hydrostatic uplift forces for basement construction below the water table.
- Determination as to whether capillary waterbreak, moisture/vapor barrier, etc., are required.
- Active and/or passive pressures to be used for the design of cantilever and basement-type retaining walls, along with recommended surcharge loadings. Static and dynamic seismic lateral soil loads are required.
- Determination as to whether native or imported fill material is expected to be reactive with normal cements.
- Spread or mat footings:
  - If spread- or bearing-type foundations are advised, the allowable soil-bearing pressure. The report should indicate if net or gross values are being supplied.
  - Coefficient of friction for sliding, and whether or not it can be combined with passive pressure values.
  - Vertical and horizontal modulus of subgrade reaction and spring constant for spread footings where more exact displacement analysis is required.
- If piles/drilled piers are recommended, supply the following data:
  - Size/type of piles to be recommended. (Note: Any limitations for displacement-type piling of adjacent buildings, equipment, etc., which are subject to damage by use of this type of pile should be identified by the owner/geotechnical engineer.)
  - Allowable end bearing.
  - Allowable skin friction.
  - Depths to bearing stratum, including recommendations regarding penetration into bearing stratum.

- Estimated pile settlements.
- Allowable pile uplift loads.
- Minimum pile spacings and minimum time period between pile placements.
- Complete set of soil properties needed to perform lateral pile analysis using the LPILE program. Allowable pile lateral loads and corresponding lateral displacements for both fixed and pinned pile cap conditions.
- Pile capacity reductions due to group action.
- Pile installation/monitoring/testing requirements.
- Pile down-drag requirements.

#### **SEISMIC RECOMMENDATIONS**

- Identification of site class in accordance with 2003 International Building Code (IBC).
- If required, development of a design response spectrum in accordance with the 2003 IBC.
- If required, development of seven pairs of horizontal ground motion acceleration components in accordance with the 2003 IBC.
- Vertical and horizontal dynamic spring constants for design of the foundation of the lateral frame.

#### **TEMPORARY SHORING SYSTEM RECOMMENDATIONS**

- Means, methods, and types of temporary shoring for all foreseen shoring conditions.
- Recommended tieback anchor friction values, geometry of no-load zone, and minimum anchor lengths.
- Lateral earth pressures and diagrams for temporary shoring system. Include a cantilever/single tieback condition and a multiple tieback condition. If different soil types are encountered, provide appropriate pressure coefficient for each soil type.
- Required soldier pile minimum embedment lengths, end-bearing value, and side friction values above and below the base of excavation.
- Horizontal spring constant (i.e., subgrade modulus for passive pressure below base of excavation).
- Lagging design criteria.
- Surcharge pressures on shoring system due to adjacent structures, including Yestler Way bridge foundations.
- Shoring monitoring requirements during construction.
- Proof loading requirements for all production tieback anchors.
- Recommendations on the number and loading criteria for tieback performance tests.
- Tributary area of active pressure above and below base of excavation.
- Tributary area of passive pressure below base of excavation.

#### **BUILDING SUBGRADE RECOMMENDATIONS**

- Recommendations for preparation of building subgrade. Address requirements for proofrolling and removal of unsuitable or unsatisfactory and organic material.
- Recommendations for the use of native material for subbase or the use of imported structural fill material to obtain improved subgrade values. Provide specification and gradation of imported material and depth of material to be placed, or methods for the modification of native soils, if they are useable. Also include discussion, and if viable, recommendations for alternate methods of improving the subgrade, such as the use of soil stabilization of the native material.

- Recommendations for use of a capillary water barrier, vapor barrier, and sand below slabs-on-grade. Include specification and gradation of the capillary water barrier, material, and sand. Also include specification for the vapor barrier.
- Recommendations for foundation drainage systems. Include requirements for minimum pipe size, specification for filter fabric, and specification and gradation of foundation drain backfill material and the recommended location of the filter fabric with respect to the backfill material.
- Address the need for underslab drainage system. If required, include requirements for minimum pipe size, specification for filter fabric, and the recommended location of the filter fabric with respect to the backfill material. Also provide the specification and gradation of underslab drain backfill material and address whether this material can be the same specification as capillary water barrier.
- Estimated flow rate of the foundation drainage and underslab drainage systems.
- Compaction criteria for all materials below slabs-on-grade and foundations, including foundation drain backfill material.

#### **SITE EARTH RETAINING SYSTEM RECOMMENDATIONS**

- Means, methodology, and types of earth retaining systems appropriate for site conditions, such as cantilever retaining walls, MSE walls, rockeries, etc.
- Active and/or passive pressures to be used for the design of cantilevered retaining walls. Also provide recommended surcharge loads and dynamic seismic lateral soil loads.
- Allowable foundation bearing pressures, sliding coefficients, and anticipated factors of safety.
- Recommendations for wall backfill material. Include specification and gradation of material to be used for backfill. Also provide compaction criteria for wall backfill material.
- Recommendations for wall drainage such as weep holes or piped drainage. If a piped system is recommended, include information regarding minimum pipe size, specification for filter fabric, and specification and gradation of the wall drain backfill material.

#### **PAVEMENT RECOMMENDATIONS**

- Recommendations for preparation of the pavement subgrade. Address requirements for proofrolling, removal of unsuitable or unsatisfactory and organic material, or the use of geotextile fabrics.
- Recommendations for the use of native material for subbase, or the use of imported structural fill material to obtain improved subgrade values. Provide specification and gradation of imported material and depth of material to be placed, or methods for modification of native soils. Also include discussion, and if viable, recommendations for alternate methods of improving the subgrade, such as the use of soil stabilization of the native material.
- California Bearing Ratio (CBR) and Modulus of Subgrade Reaction (k) for the recommended subgrade and subbase for design of asphalt and concrete pavements respectively.
- Recommendations for pavement underdrain systems, if required. Include information on pipe sizes, filter fabric, and drainage backfill material gradation.
- Recommendation for specification and gradation of pavement base course.
- Compaction criteria for all components of the pavement sections including the subbase, base course, and asphalt pavements.

#### **UTILITIES**

- Information regarding the use of native material for trench backfill. If native material is not useable, provide specification and gradation for material to be used.
- Compaction criteria for trench backfill and bedding material.

- Information on the corrosive properties of the soils on metallic piping. If soils are found to be corrosive, provide recommendations for protection of utilities.

**Schedule:**

The project schedule is anticipated as follows:

1. Submittals due June 25, 2004
2. Interviews and consultant selection week of June 28, 2004
3. Contract finalized by July 21, 2004.
4. Geotechnical report due by September 10, 2004

**Consultant Qualifications:**

1. Experience with projects built to an “essential facility” structural standard.
2. Experience working with projects built on urban sites inside the City of Seattle.
3. Experience working with public sector clients.
4. Firms must be located within 50 miles of downtown Seattle.

**Consultant Selection:**

A panel of City representatives will review submittals. Three firms will be invited to interview, after which a final selection will be made.

Consultants will be rated on the following criteria:

1. Experience with projects similar in size and scope to the Fire Station 10 Replacement Project (45 points)
2. Experience working with projects built on urban sites (30 points)
3. Experience working with public-sector clients. (10 points)
4. Satisfaction of previous clients, based on references. (10 points)
5. Quality and organization of submittal. (5 points)

**Submittals:**

Submittals should 8-1/2” x 11” in format, and no more than 10 pages, double sided, excluding transmittal letter, covers or tabs. Submittals should include:

1. A Letter of Transmittal and Statement of Interest in the project.
2. A description of the specific qualifications of the consultant and any proposed sub-consultants as related to the project.
3. An introduction, including resumes, of the individuals who would be working on the project, indicating their respective roles.
4. A list of at least three references for previous projects of similar scope (include contact name, telephone number and e-mail address).
5. Other information demonstrating fulfillment of the selection criteria noted above.

Submit four copies by 4:00 pm, June 25, 2004, to:

Teresa Rodriguez, AIA  
Capital Programs Division, Fleets and Facilities Department  
14<sup>th</sup> Floor Alaska Building  
618 Second Avenue  
Seattle, Washington 98104

Telephone 206.684.0156  
Email [teresa.rodriguez@seattle.gov](mailto:teresa.rodriguez@seattle.gov)

Do not fax your material. Submittal materials will not be returned.

**Nondiscrimination in Employee Benefits:**

The Consultant shall comply with the requirements of Seattle Municipal Code Chapter 20.45 and Equal Benefits Program Rules implementing such requirements, under which the Consultant is obligated to provide the same or equivalent benefits (“equal benefits”) to its employees with domestic partners as the Consultant provides to its employees with spouses, if any.

**Women & Minority Business Enterprise**

Like its general population, Seattle’s business community is diverse. The City of Seattle encourages contractors to employ a workforce reflective of the region’s diversity. The City encourages the utilization of minority-owned businesses (MBEs) and women-owned businesses (WBEs) (collectively, WMBEs), in all City contracts. Pre-notification, open solicitation, small business-oriented task grouping for subcontracts, and co-operative recruitment are beneficial contract management practices that will aid in successful identification and incorporation of WMBEs into this contract.

Contractors, bidders, and proposers shall not create barriers to open and fair opportunities for WMBEs to participate in all City contracts and to obtain or compete for contracts and subcontracts as sources of supplies, equipment, construction and services. In considering offers from and doing business with subcontractors and suppliers, the Contractor shall not discriminate on the basis of race, color, creed, religion, ethnicity, sex, age, nationality, marital status, sexual orientation or the presence of any mental or physical disability in an otherwise qualified person. The City has a goal of 27 percent WMBE utilization on its public works/construction projects. This goal is not a preference, and the City does not grant preferential treatment based on either race or gender in the awarding of its contracts. Thus, whether the Contractor meets the City’s WMBE goal in its bid or proposal will not be a consideration in awarding of this contract.

This entire Request for Qualifications and Letters of Interest and any future Addenda can be downloaded at: <http://www.cityofseattle.net/facilitydevelopment/> under **Current Requests For Qualifications / Proposals**. Interested firms who do not have access to the web can contact the Project Coordinator listed below for a faxed copy.

Further specific questions regarding this announcement, and the Statements of Qualification, should be directed to:

Ms. Teresa Rodriguez, AIA, Project Coordinator  
Capital Programs Division, Fleets and Facilities Department  
Alaska Building, 14<sup>th</sup> Floor, 618 2<sup>nd</sup> Avenue  
Seattle, WA 98104 [teresa.rodriguez@seattle.gov](mailto:teresa.rodriguez@seattle.gov)  
Phone: 206-684-0156 Fax: 206-684-0525

The City reserves the right to reject any and all submittals.

This announcement was published in the Daily Journal of Commerce: **Monday, June 14, 2004.**